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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,512	04/13/2004	Kevin E. Dove	GK/57	3277

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EXAMINER	
PICKARD, ALISON K	

ART UNIT	PAPER NUMBER
3676	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,512	DOVE, KEVIN E.	
	Examiner	Art Unit	
	Alison K. Pickard	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-60,64-74 and 76-82* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-60,64-74 and 76-82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 7-14, 18, 19, 22, 24-35, 39, 40, 43, 45-47, 49-54, 56-60, 64-68, 71-74, 76-80, and 82 are rejected under 35 U.S.C. 103(a) as being obvious over Mills (5,964,465) in view of JP '192 in view of Payne (2,173,744).

Mills discloses a gasket comprising upper and lower gasket sealing surfaces (e.g. 26, 34). The gasket comprises a porous expanded PTFE tape with a plane of expansion in the x-y direction (plane is parallel to sealing surfaces and leakage). The gasket can have a variety of shapes. Mills does not appear to disclose an air impermeable layer between alternate windings of the tape. JP '192 teaches a gasket that can be spirally formed with alternate layers of ePTFE and an impermeable layer. JP"'192 teaches using the impermeable layer 12 to prevent fluid leakage through the tape layers, thus effecting a better seal. JP '192 teaches the method of joining the layers as required by the claims. The layer 12 can be applied to the inner perimeter. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gasket of Mills with the impermeable layer as taught by JP '192 to improve the sealing ability of a gasket using ePTFE.

Although JP '192 states the layers can be piled up spirally, JP '192 does not appear to specifically state the PTFE tape is wound continuously for at least two windings with the

impermeable layer between the two windings. Payne teaches equivalent shapes for gaskets comprising at least two materials 12 and 14. Figure 4 shows a gasket can be made such that the layers are concentric circles, which appears similar to the construction of JP' 192. And Figure 3 shows the layers can be spirally wound to form the gasket. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gasket of Mills in view of JP '192 by spirally winding the PTFE layer and impermeable layer together to form the gasket as such is an equivalent method used in a similar device and would yield expected results.

Regarding claims 8-10, 30-32, 50, 51, 59, neither Mills nor JP '192 appear to disclose the required densities. It is not considered inventive to discover the workable or optimum ranges by routine experimentation absent the showing of criticality for such ranges. See In re Aller, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the claimed densities.

3. Claims 15-17 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of JP '192 in view of Payne as applied to claims above, and further in view of Mortimer.

Mortimer teaches improving properties of an ePTFE tape by using fillers such as those required by the claims (col. 3, line 48-col. 4, line 19). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by using the filler taught by Mortimer to improve the capacity, conductivity, and strength properties.

4. Claims 20, 21, 23, 41, 42, 44, 48, 55, 69, 70, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of JP '192 in view of Payne as applied to claims above, and further in view of Minor (6,485,809).

JP '192 does not appear to disclose other materials that can be used for the impermeable layer. Minor teaches a gasket having an impermeable layer between layers of ePTFE. Minor teaches art equivalent materials such as densified ePFTE (taught in JP '192), FEP, and PFA. It would have been obvious for one of ordinary skill in the art at the time the invention was made to use any of the equivalent materials taught by Minor as the impermeable layer based on suitability, availability or cost.

5. Claims 1-4, 7-14, 18-27, 29-35, 39-60, 64-74, and 76-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills '465 in view of Minor (6,485,809) in view of Payne '744.

Mills discloses a method and gasket comprising upper and lower gasket sealing surfaces (e.g. 26, 34). The gasket comprises a porous expanded PTFE tape with a plane of expansion in the x-y direction (plane is parallel to sealing surfaces and leakage). The gasket can have a variety of shapes. Mills discloses the tape can be coated (col. 4, lines 2-6) but does not appear to disclose an air impermeable layer between alternate windings of the tape. Minor teaches a method and gasket having a layer of ePTFE coated with an air impermeable layer 14/13 on all sides (e.g. Figs. 11 and 13) and it can be between two layers of ePTFE (e.g. Fig. 3). The impermeable layer is a fluoropolymer such as PFA or FEP and is applied to the layer of ePTFE and heated with pressure. The layer 13/14 makes the seal impermeable to air and corrosion while still allowing the benefits of using ePTFE for the main body. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by coating it with the impermeable layer taught by Minor to improve the gasket.

Both Mills and Minor teach the gasket can be made in any shape but neither specifically state the tapes are wound in a spiral form. Payne teaches equivalent shapes for gaskets comprising two layers/materials 12 and 14. Figure 4 shows a gasket can be made in a typical ring form (similar to Mills and Minor). And, Figure 3 shows an equivalent shape that is a spiral wound gasket. As seen in the figure the main "tape" 12 which is coated with layer 14 is wound continuously for at least two windings such that the layer 14 is between them. Similarly, the coated tape of Mills in view of Minor would be wound such that impermeable layer is between continuous windings of ePTFE. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the gasket to a spiral wound gasket as such is an equivalent shape that is suitable for sealing and would yield expected results.

Regarding claims 8-10, 30-32, 50, 51, 59, neither Mills nor JP '192 appear to disclose the required densities. It is not considered inventive to discover the workable or optimum ranges by routine experimentation absent the showing of criticality for such ranges. See In re Aller, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the claimed densities.

6. Claims 15-17 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Minor in view of Payne as applied to claims above, and further in view of Mortimer.

Mortimer teaches improving properties of an ePTFE tape by using fillers such as those required by the claims (col. 3, line 48-col. 4, line 19). Therefore, it would have been obvious for

one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by using the filler taught by Mortimer to improve the capacity, conductivity, and strength properties.

Response to Arguments

7. Applicant's arguments filed 10-8-09 have been fully considered but they are not persuasive.

The rejection of Mills in view of JP '192 in view of Payne has been maintained. Applicant argues that JP '192 does not teach the impermeable layer between windings of a tape. The examiner disagrees. First, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Mills already discloses the "tape" with the layers in the proper orientation. JP' 192 is used for the teaching of an impermeable layer in between layers of ePtfe layers. JP '192 teaches that sheets 1 are wound to form layers 11a and 11b. These layers are similar to Mills's and Applicant's layers (or tapes) in that they too are a laminated stack. JP '192 teaches the impermeable layer is between side surfaces of those layers. This teaching is applied to Mills and the impermeable layer would be on the sides as required by the claims. If the impermeable layer were only between individual sheets as Applicant is arguing, it would be shown that way.

A new rejection using Mills in view of Minor has also been provided. Minor teaches coating all sides of an ePFTE tape. In either rejection, the tape with the impermeable layer would be wound as shown in Figure 3 of Payne and would result in the claimed structure.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062. The examiner can normally be reached on M-F (9-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alison K. Pickard/
Primary Examiner, Art Unit 3676

AP